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#### ABSTRACT

This paper presents ideas for and examples of using poetry to teach science at the middle school and high school levels. These poems can be used to teach science lessons because they contain science terms. Students will learn science while defining and discussing these terms and realize that science relates to everything. The poems are "A Snow Man," "Baseball," and "Bright Star." (WRM)



## SCIENCE AND POETRY

# Bv

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\* ( Dr. Dana Barry works at Clarkson University's Center for Advanced Materials Processing - CAMP). This paper is part of a Summer 2000 Science Workshop for the Ogdensburg Public Library in Ogdensburg, N.Y.

A unique and captivating way of teaching science to Middle/High School students is by the use of poetry. Students will be amazed at the number of science terms contained in a simple poem. They will learn science while defining and discussing these terms and realize that science relates to everything.

Below is a simple poem entitled "A Snow Man." This poem was written to describe a snow man and its fate. However the poem can be used to teach an excellent science lesson because it contains many science terms.

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#### A SNOW MAN

A snow man sits in an open field. The wind blows but he does not yield. Two large pine trees provide a shield, For the snow man in the open field.

He has eyes of coal and his mouth is sealed. Rabbits scurry by randomly like cards being dealed. Though surrounded by everything no thoughts are revealed, From the snow man in the open field.

Exposed to the sun without a proper shield, His body shrinks as if layers were peeled. Water drips like blood in a wound to be healed. Woe to the snow man in the open field.

Dana M. Barry, Ph.D. Clarkson University Potsdam, New York



The following are science terms included in "A Snow Man." Brief definitions are also given. To extend this lesson and increase the amount of science learned, assign science terms (one per student) to the students, have them prepare written reports, and share their information by giving oral presentations in class.

#### **SCIENCE TERMS**

man - Homo sapiens (an adult male)

snow - the most common form of frozen precipitation (example: flakes of starlike crystals)

wind - moving air

tree - a woody plant

pine - a cone-bearing tree (genus Pinus) containing evergreen needles

eyes - photoreceptive sense organs capable of forming an image in vertebrates

coal - a natural, rocklike, brown to black derivative of forest-type plant material

mouth - the oral cavity and its related structures

rabbits - burrowing mammals in the family Leporidae

sun - a star about which the Earth revolves

body - the material substance of man or any animal

 $water - H_2O$  (the universal solvent which contains the elements hydrogen and oxygen)

blood - a fluid consisting of plasma and cells



#### **POETRY / SCIENCE ACTIVITIES**

1.

As an English assignment have the students write rhyming poems about a topic of interest. The poems can be shared as oral presentations in class. Have the students listen carefully to each poem and prepare a list of science-related words included in the poems. Ask the students to write definitions for these words. For a comprehension/interpretation exercise, have the students write a brief description of each poem. Discuss the science terms, definitions, and poem descriptions in class. The original poems can be put into pamphlets and distributed to the students and/or individually displayed in the classroom.

#### Sample Activity

poem:

Baseball

By Dana M. Barry

Baseball is fun.

It is a game where you hit the ball and run.

It is usually played outside in the sun.

When a game is done, the team with the higher score has won.



#### science-related words & definitions:

you - refers to a human being (Homo sapiens)
 hit - an action which produces sound (ex. Hit the piano keys.)
 run - to move quickly (a form of physical activity /exercise)
 outside - our surrounding environment
 sun - a star about which the Earth revolves

## brief poem description:

Baseball is a game where one hits the ball and runs. It is fun and usually played outside.

2.

Give the students five science terms with definitions. Ask them to write a poem about one of the science terms. Share the poems with the class.

### **Sample Activity**

science terms & definitions:

fish - a common name for aquatic vertebrates belonging to the groups

Cyclostomata, Chondrichthyes, and Osteichthyes



star - a celestial body containing a large, luminous mass of hot gas (ex.the sun)

 soil - part of the Earth's surface usually consisting of a mixture of disintegrated rock and decayed organic matter

food - material that can be ingested and used by an organism for energy and nutrition

copper - a chemical element that is a metal with the symbol Cu

poem:

**Bright Star** 

By Dana M. Barry

In the sky I see a bright star.

It sparkles like a diamond in a jar.

Its twinkles can be seen from my car.

I just love this bright star from afar.





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